

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Joachim GUETTINGER et al.
Based on : PCT/DE 2004/001127
Filed : April 25, 2005
Title : Electrical Machine With Easily Positioned Brush Holder And
Installation Method For An Electrical Machine

Docket No. : R.305861
Customer No. : 02119

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97(b),
AND EXPLANATION OF THE RELEVANCE OF THE CITED PRIOR ART**

Sir:

The undersigned hereby requests that the prior art cited on the attached prior art statement be placed of record in the application file and be considered by the examiner.

This citation of prior art is made under 37 CFR 1.97(b), since it is being filed within three months of the filing date and before the mailing of a first Office action.

The relevance of the prior art cited on the attached form 1449 is as follows:

Appl. No. Unknown
IDS under 37 CFR 1.97(b)
Prior to first Office Action

US 4,596,941

This patent teaches an electric motor which includes an end wall having a collector mounted therein. The brushes of the motor are affixed to spring levers resiliently mounted on the end wall. The end wall includes a diaphragm-like portion having a release pin extending radially inward. The spring lever with the affixed motor brush is maintained in a mounting position by contact with a holding pin. After the assembly of the collector between the brushes, the diaphragm is compressed to push the release pin into the lever. The lever is freed from contact with the holding pin and is released to allow the brush to contact the collector.

DE 88 12 549 U1

This patent teaches an electric machine, in particular an electric motor for the windshield wiper of an automobile. The wiper configuration comprises a commutator and a brush-holder supported by the casing by means of electrical elements. It comprises a rigid casing (2) in which a stator is fixed (5), a rotating rotor (6) carrying a commutator (7) and a brush-holder (8) supported in the casing (4). The brush-holder (8) is supported by means of elastic suspension elements (12) and carries the brushes (10) cooperating with the commutator. The elastic suspension elements (12) extend radially, between the brush-holder (8) and the lateral wall of the casing (4).

JP 10-136615

This patent teaches a system to provide size reduction of a DC motor easily by fixing a pair of elastic brushes at a brush retaining block, extending it toward a commutator, and elastically-clamping the peripheral surfaces of the commutator. When a brush element (30) is inserted into a brush accommodating hole (16) from an elastic brush piece (31), a pair of elastic brush pieces (31) are advanced toward a commutator (22) inside the brush accommodating hole (16). The front ends (31a) of a pair of elastic brush pieces (31) guide part A outwards. As a result, when a pair of elastic brush pieces (31) advances inside the brush accommodating hole (16) and are brought into contact with the commutator (22), the elastic brush pieces (31), to the outsides of which force is given by the guide parts A, are pushed open along the peripheral surface (22) of the commutator (22), and are introduced on both sides of the commutator (22). Under this condition, a brush-retaining block (32) is press-fitted into the brush accommodating hole (16) to be fixed. When current is applied to a terminal part (33) from the outside, a rotor-rotating shaft (20) rotates, and the commutator (22) is brought into sliding contact with a pair of elastic brush pieces (31).

GB 2 256 536 A

According to the teachings of this patent, to facilitate assembly in a commutator motor, the brush leaves (3) of a fractional horsepower PMDC electric motor are mounted in brush holders (4) formed integrally with the end cap (2) of the motor. Each brush holder (4) is connected to a central portion (7) of the end cap (2) by means of a deformable interconnecting

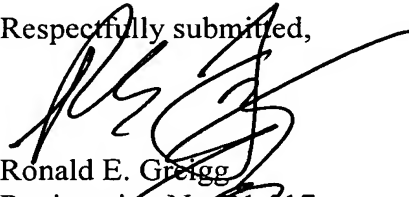
Appl. No. Unknown
IDS under 37 CFR 1.97(b)
Prior to first Office Action

portion (6) and extends across an aperture (9) formed in the outer rim (8) of the end cap (2).

Wedging members (5) disposed between the brush holders (4) and adjacent sides of the apertures (9) swing the brush holders (4) from a first position in which the brush leaves (3) are clear of the motor commutator (2) (right hand half of figure) into a second position in which the brush leaves engage the commutator with the required pressure (left hand half of figure).

Examination of this application is respectfully requested.

Respectfully submitted,



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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

of

Application Number

Filing Date

First Named Inventor

Joachim Guettinger et al.

Art Unit

Examiner Name

Attorney Docket Number

R.305861

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

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Examiner
Signature

Date	
Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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